# Things that WSDOT Can Partially Control The "Toolbox"

Reduced cost through increased competition

Communication

- Time bid advertisements to promote competitive appetite
- Communication of current and future contract opportunities; special outreach on unusual or difficult projects
- Call bidders

#### Contract structure

- Bundle or break up projects to attract bidders
- Give flexibility to contractors to encourage them to shop for the most economical materials values ("performance or end product specifications")
- Flexible start date

#### Owner of choice

- Provide early payment provisions ("materials on hand")
- Cost Reduction Incentive Proposals (CRIPS)
- Fair and efficient practices in contract administration
- Fair and efficient risk allocation in the contracting relationship
- Consistency in specifications and a fair process for responding to questions and requests for clarification

## Reduced cost through reduced scope

- Bid "additive alternates"
- Adjust a project scope to "buy-less"
- Cancel a project that inflation in materials costs has made too expensive (not preferred)

# Things that WSDOT Cannot Control

The "Crystal Ball"

There is no crystal ball. Past results are not a guarantee of future performance. This is precisely the case when looking ahead to national and local construction industry pricing, especially when price volatility seems inevitable from the many trends the industry now faces.

#### WSDOT cannot influence:

- Overall volume of public and private sector work seeking contractors
- Contractors' access to key subcontractors and sources of construction material
- Bonding and other capacity constraints affecting contractors' appetite for work
- Market trends in the construction industry towards consolidation and shrinkage of number of local firms
- Contractors' appetite for "risk" is inversely proportional to the volume of work available

### **Ouestions?**

Visit www.wsdot.wa.gov/biz/construction/



## Kevin J. Dayton, P.E.

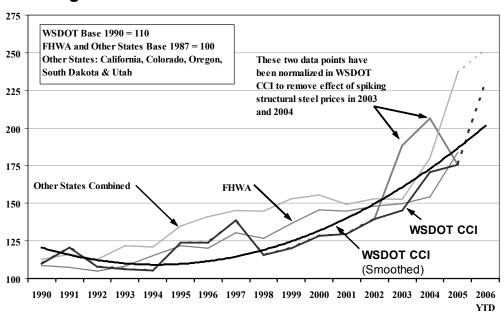
State Construction Engineer
Washington State DOT Headquarters Construction Office

2006 AASHTO Subcommittee on Construction San Juan, Puerto Rico

August 2006



# **Construction Costs Indices Washington State and Others**



The following components (weighted as shown) are used to compute the CCI:

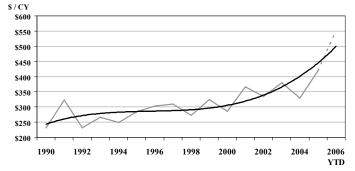
Concrete Pavement 3.2% Crushed Surfacing 7.9% Hot Mix Asphalt 48.5% Roadway Excavation 10.7% Steel Reinforcing Bar 5.4% Structural Concrete 17.4% Structural Steel 6.9%

Note: WSDOT 2006 Index is for Quarters 1 &2 Other States 2006 Index based on California, Colorado and Oregon First Quarter Data FHWA Index based on 2005 Data Sources: WSDOT Construction Office, FHWA

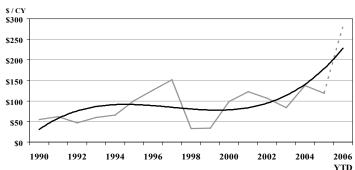
WSDOT's construction cost index (CCI) has increased 31% in the first two quarters of 2006 over the annual average for 2005, from 176 to 230. Of the seven materials WSDOT tracks in the CCI, Hot Mix Asphalt (HMA) comprises the majority, or 48.5 %, of the index. HMA costs have risen 33% in the first two quarters of 2006.

The average annual growth rate of the CCI from 1990 through 2001 was 1.5% per year, but since 2001, the average growth rate has been 12% per year. During this period the CCI has been driven up by several factors, among them: the increasing worldwide demand for construction materials; recent increases in national and international construction activity; rising crude oil prices and other energy supply issues.

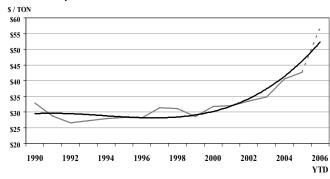
## Structural Concrete Unit Bid Price



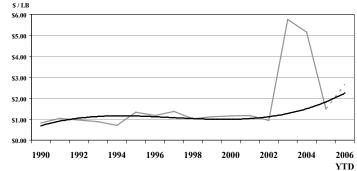
#### **Concrete Pavement Unit Bid Price**



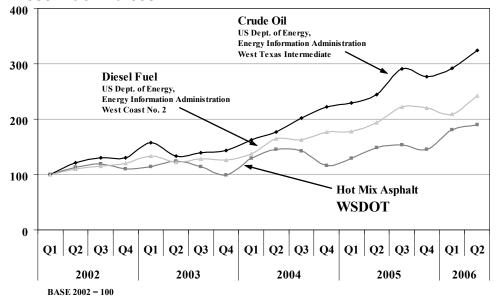
#### Hot Mix Asphalt Unit Bid Price



## Structural Steel Unit Bid Price



# WSDOT Hot Mix Asphalt, Crude Oil & Diesel Fuel Indices

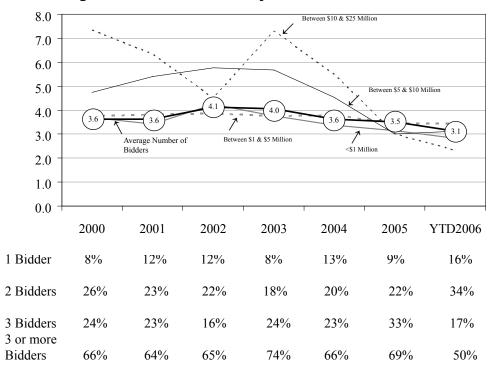


# The Relationship Between Hot Mix Asphalt, Crude Oil and Diesel Fuel

HMA prices typically follow a similar pattern to the price of crude oil and diesel fuel. Liquid asphalt, the binder used for HMA, is refined from crude oil.

- HMA is estimated to be 36% dependent on petroleum products
- Mining, crushing, hauling stockpiling and drying the aggregates require petroleum products
- Mixing, hauling, placing and compacting HMA requires petroleum products

## **Average Number of Bidders By Size of Contract**



The average number of contractors bidding on WSDOT projects has decreased 11% in the first two quarters of 2006, from an average of 3.5 bidders in 2005 to an average of 3.1 bidders in the first two quarters of 2006. The percentage of WSDOT projects with three or more bidders decreased from 69% in 2005 to 50% today, while the number of WSDOT projects with 1 or 2 bidders has increased in the first two quarters of 2006 by 61%, from 31% to 50%.

# Average Number of Bidders on WSDOT Projects

With the large construction program in Washington, both public and private, as well as at the national level, we continue to see fewer contractors submitting bids for WSDOT projects. This reduction in competition is a sign of contractors having a full load of work ahead of them, but unfortunately also relates to higher prices for our projects.

Factors contributing to the recent decrease in bidders:

- Consolidation of bidders
- Specialty areas in subcontracting and supply
- The amount of work on the street

Source: WSDOT Construction Office